ABSTRACT OF THE DISCLOSURE

A calculation is performed to find a degree of certainty about malignancy, which represents a level of possibility of a pattern being a malignant pattern, with respect to an abnormal pattern candidate having been detected in accordance with a medical image signal representing a medical image. The calculation is performed in accordance with an index value representing a feature of the abnormal pattern candidate and in accordance with a correlation between the index value and possibility of a pattern being a malignant pattern, which has been obtained from clinical results. Information representing the degree of certainty about malignancy with respect to the abnormal pattern candidate is outputted together with the information for specifying the detected abnormal pattern candidate.